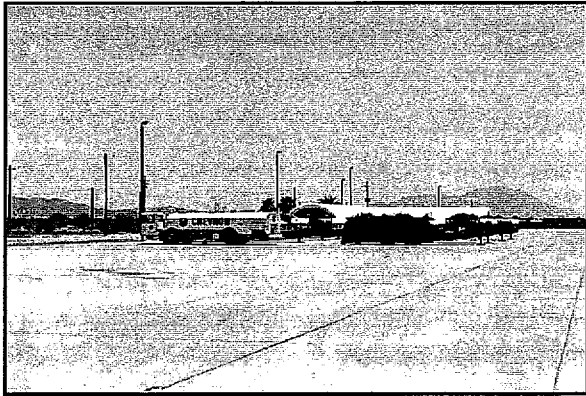




## Chapter Four

# ALTERNATIVES

**COOLIDGE**  
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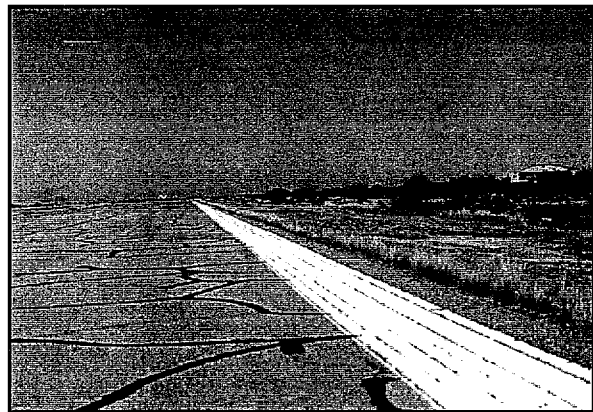


In the previous chapter, airside and landside facilities required to satisfy the demand for the long range planning horizon was identified. The next step in the master planning process is to identify alternatives for meeting these needs. The alternatives analysis is an important step in the planning process since it provides the basis for the final master planning recommendations.

The possible combination of alternatives can be endless, so some intuitive judgement must be used to identify the alternatives which have the greatest potential for implementation. The evaluation of alternatives is a process of deciding which options are most compatible with the goals and objectives of the local area and the City of Coolidge. After the evaluation process, a selected airport concept can be transformed into a realistic development plan.

Any development proposed for a master plan is evolved from an analysis of projected needs for a set period of time. Though the needs were determined by the best methodology available, it cannot be assumed that future events will not change these needs. The master planning process attempts to develop a viable concept for meeting the needs caused by projected demands for the next twenty years. However, no plan of action should be developed that is inconsistent with the goals and objectives of the City of Coolidge.

Besides the development alternatives, consideration must be given to the do-nothing or no build alternative and the possibility of transferring demand to another airport altogether. These alternatives are addressed in the narrative that follows.



## **DO-NOTHING ALTERNATIVE**

In analyzing and comparing the costs and benefits of various development alternatives, it is important to consider the consequence of no future development at the airport. The "do-nothing" alternative essentially considers keeping the airport in its present condition and does not provide for any type of improvement to the existing facilities. The primary result of this alternative would be the inability of the airport to serve as an economic catalyst for the City of Coolidge.

Originally constructed as an air transport command base during World War II, the airport has sufficient land area, combined with airfield facilities, to provide a unique opportunity for the City of Coolidge. Unfortunately, without improvements to airside and landside infrastructure, the airport would likely continue to be utilized as a base for a handful of general aviation aircraft or for training flights from other airports.

Aviation activity throughout central Arizona indicates that there is potential for the airport to expand beyond its existing role. The existing airport facilities can accommodate many business and corporate aircraft. In addition, there is ample land area available for aviation-related development. The airport has experienced high levels of skydiving activity in the past until a large concentration of military activity at the airport forced the termination of these activities at the airport. It is reasonable to assume that these types

of activities can be accommodated at the airport again.

The opportunities at the airport, however, extend beyond general aviation. Because general aviation needs will only require a small portion of the available land area at the airport for the development of landside facilities, the remainder of the available property can be utilized for industrial/commercial development, both aviation and non-aviation uses. Maximizing available airport property for industrial and commercial uses will benefit the airport and surrounding community through the creation of jobs and the influx of outside revenues. Therefore, the airport's role will not only be to serve the aviation needs of the community, but also to diversify the local economy to include more industrial/commercial development.

An unavoidable consequence of the do-nothing alternative would involve the airport's inability to attract potential airport users and potential businesses to the area. General aviation plays a major role in the transportation of business leaders. Thus, an airport's general aviation facilities are often the first impression many corporate officials will have of the community. If the airport cannot meet hangar, apron, or airfield needs of potential users, the local area's capabilities to attract businesses that rely on air transportation will be diminished.

This would especially affect the airport's ability to attract businesses and industries that have aviation services and facilities who are seeking new locations in the region. If further development of industrial and

commercial businesses and economic growth in the community is to be realized, the ability of the airport to attract potential revenue sources must be maintained. Failure to plan the airport to accommodate these potentials would eliminate the possibilities of attracting aviation-related business which could spur growth of the local economy.

The airport has much to offer in terms of runway capability, clear runway approaches, and large expanses of developable land. Without regular maintenance, additional improvements, and careful planning, potential users for the airport and businesses for the City of Coolidge could be lost. A decision to follow a no-build alternative and neglect the potential of the airport would be short-sighted and may adversely affect the long-term viability of the airport and the community.

### ***TRANSFER AVIATION SERVICES***

The alternative of shifting aviation services to another existing airport was found an undesirable alternative due to lack of airports available having the facilities or the potential that Coolidge Municipal Airport provides to the region. Other public airports in central Pinal County are Eloy Municipal Airport, Casa Grande Municipal Airport, and Pinal Airpark. While all three of these airports are relatively accessible, they are not as convenient and will not enhance community development in the City of Coolidge. Also, these airports do not have the potential for development as does Coolidge Municipal Airport.

### ***DEVELOPMENT OF NEW AIRPORT SITE***

The alternative of developing an entirely new airport facility to serve the City of Coolidge was also considered, but similarly found to be an unacceptable alternative primarily due to the economic and environmental considerations. Constructing an entirely new airport can be a very difficult and costly action requiring a tremendous financial commitment of public funds for land acquisition, site preparation, and the construction of airport facilities. In addition, closing the airport would mean the loss of a substantial investment in an existing facility and community asset. In a situation where public funds are limited, the replacement of a functional and expandable airport facility would represent an unjustifiable loss of taxpayers dollars.

From social, political, and environmental standpoints, the commitment of a new large land area must also be considered. The public sentiment toward new airports in the last few years has been very negative, primarily because a new airport normally requires the acquisition of several large parcels of privately-owned land. Furthermore, the development of a new airport similar to Coolidge Municipal Airport would likely take years to become a reality. In addition, the potential exists for significant environmental impacts associated with disturbing a large land area when developing a new airport site. Adding a new airport when the existing airport can be improved for much less cost cannot be considered a prudent alternative.

Overall, transferring service to an existing airport in the region or to an entirely new facility are unreasonable alternatives that should not be pursued. Coolidge Municipal Airport is fully capable of accommodating the long-term aviation needs of the area and should be developed in response to those demands. Furthermore, the airport provides the community a building block on which economic growth and diversification can be built.

## **AIRPORT DEVELOPMENT ALTERNATIVES**

The previous chapter identified both the airside and landside facilities necessary to satisfy forecast demands through the planning period. The overall objective is to produce a balanced airside and landside complex to serve forecast aviation demands. However, before defining and evaluating specific alternatives, development objectives should be identified.

The City of Coolidge provides the overall guidance for the operation and development of the Coolidge Municipal Airport. Therefore, it is of primary concern that the airport is marketed, developed, and operated for the betterment of the City of Coolidge. With this in mind, the airport development alternatives have been prepared considering the following objectives:

- Develop an attractive, efficient, and safe aviation facility.
- Encourage increased general aviation use of the airport by promoting increased business

and corporate use of the airport and providing areas for commercial general aviation and private general aviation development.

- Target local economic growth through development of available airport property for aviation-related and non-aviation related industrial/commercial uses.

In attempting to meet these objectives, development of facilities should be undertaken to minimize operational constraints. Flexibility in airport development is essential to assure adequate capacity while minimizing financial commitments until market potential is realized.

The development alternatives for Coolidge Municipal Airport can be categorized into two functional areas: the airside (airfield) and landside (aircraft storage hangars, apron, and terminal areas.) Within each of these areas, specific facilities are required or desired. Although each functional area is treated separately, planning must integrate the individual requirements so that they compliment one another.

## **AIRFIELD ALTERNATIVES**

Airside facilities are by nature the focal point of the airport complex. Because of their primary role and the fact that the physically dominate airport land use, airside requirements are the most critical input to the identification of reasonable alternatives for airport development. Furthermore, due to the nature of aircraft operations, there are a number of FAA design criteria that

must be considered when looking at airfield improvements.

## Runways

In the previous chapter, an evaluation was undertaken of the adequacy of the existing runway lengths, widths, and strengths, since these needs frequently change as new aircraft are introduced into the mix of aircraft used by businesses or individuals. The assessment of the runway system indicated that the existing length, width, and strength of the primary runway (Runway 5-23) are adequate to serve the needs of 100 percent of small aircraft and 75 percent of aircraft over 12,500 pounds (but less than 60,000 pounds) at 60 percent of their useful load, in both wet and dry runway conditions. The crosswind runway (Runway 17-35) is capable of handling nearly 95 percent of small aircraft. In the existing configuration, the runway system at the airport can serve all small general aviation aircraft and the majority of business aircraft for flights to regional markets. The airport is not expected to be used by business aircraft for long stage lengths, therefore, there is not a strong need for additional runway length at the airport.

Presently, Runway 5-23 is 150 feet wide. This width exceeds FAA design standards for the runway. FAA design standards specify a width of 100 feet. Since military operations have ceased at the airport, there is no longer a need for this additional runway width. Therefore, when Runway 5-23 is reconstructed, it should be rebuilt to the design width of 100 feet. The existing 75-foot width of Runway 17-35

meets FAA design standards and should be maintained.

## Taxiways

While there are not full-length parallel taxiways serving either runway, there is taxiway access to the Runway 5, 23, and 17 ends. Taxiways 3 and 5 provide access to the Runway 5 end. Taxiway 6 provides access to the Runway 23 end. Taxiway 4 provides access to a portion of the Runway 17 end. Taxiway 1 and Taxiway 2, which in the past provided access to the Runway 35 end, have been closed due to deteriorated pavement. This has eliminated taxiway access to the Runway 35 end. To reach this runway end, aircraft must back-taxi along the runway and turn around at the runway threshold. While current activity levels do not indicate a need for parallel taxiway access to the Runway 35 end, future development in this area should take into consideration the possible reconstruction of this taxiway. Consideration should be given, however, to the construction of a holding bay at the Runway 35 threshold to allow an area off the runway for aircraft to turn around and prepare for departure should Taxiway 1 and Taxiway 2 remain unusable. The number of exit taxiways along each runway is sufficient for existing and projected levels of activity.

Currently, each taxiway is 50 feet wide. This width exceeds FAA design standards for the taxiway which require a width of 35 feet. Since military operations have ceased at the airport, there is no longer a need for this additional taxiway width. Therefore, when these taxiways are reconstructed,

they should be rebuilt to the design width of 35 feet.

### **Airfield Lighting**

Presently, Runway 17-35 and Taxiways 1, 3, and 5 are not equipped with pavement edge lighting. Pavement edge lighting would enhance the safety of operations along these surfaces at night. Therefore, pavement edge lighting should be installed along these movement surfaces.

The landing phase of flights to the airport will almost always be conducted in visual conditions. Therefore, to assist pilots in determining the correct approach path the runway end, the facility needs evaluation indicated that visual glideslope indicators (VGSI) should be installed to the Runway 17 and 35 ends and the existing visual approach slope indicators (VASI's) on Runway 5-23 (which are currently inoperable) should be repaired or replaced.

While Runway End Identifier Lighting (REIL's) will not improve the existing approach visibility minimums, consideration should be given to installing Runway End Identifier Lighting (REIL's) to aid pilots in locating the runway end during poor weather conditions to enhance the safety of operations at the airport.

### **Airfield Safety Considerations**

The FAA has established several imaginary surfaces to protect aircraft operational areas and keep them free from obstructions that could affect the

safe operation of aircraft. These include the Runway Safety Area (RSA), Object Free Area (OFA), primary surface, Runway Visibility Zone (RVZ), and Runway Protection Zone (RPZ). These critical safety areas are depicted on **Exhibit 4A**.

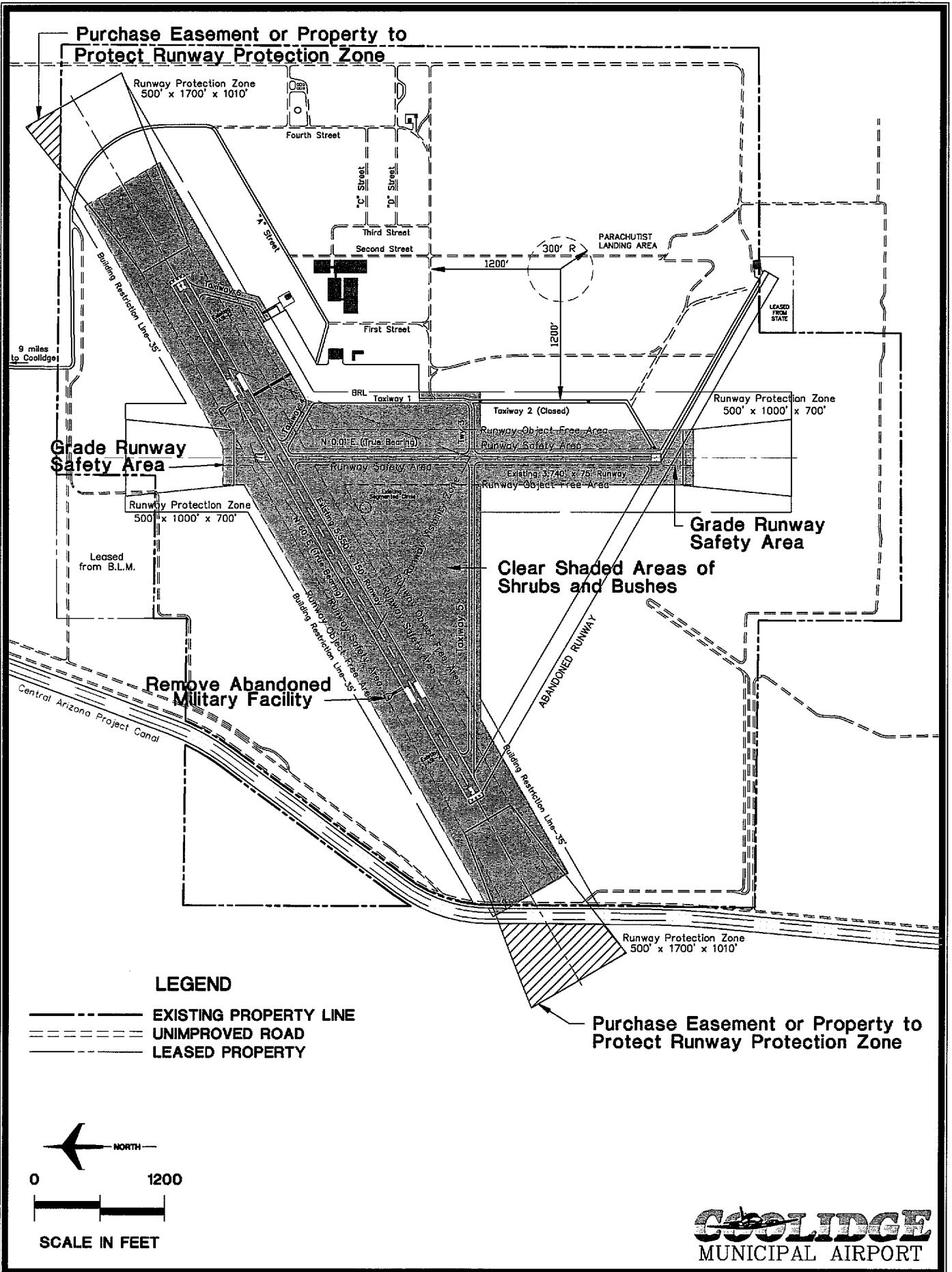
The RSA is defined as a "surface surrounding the runway prepared or suitable for reducing the risk of damage to airplanes in the event of an undershoot, overshoot, or excursion from the runway." The OFA is defined as "a two dimensional ground area surrounding runways, taxiways, taxilanes which is clear of objects except for objects whose location is fixed by function."

The primary surface is a surface longitudinally centered on the runway which extends 200 feet beyond each runway end. Its width is determined by the approach visibility minimum. The primary surface must remain clear of objects to allow for the unobstructed passage of aircraft. The only exceptions are objects less than two feet high and those objects whose location is fixed by function.

The RVZ is an area formed by imaginary lines connecting the two runways' visibility points. FAA design standards stipulate that terrain needs to be graded. Permanent objects need to be designed or sighted so that there will be an unobstructed line-of-sight from a point five feet above one runway centerline to five feet above an intersecting centerline within the RVZ.

The RPZ is defined as an area off the runway end to enhance the protection of people and property on the ground. It is desirable for the RPZ to be clear of

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objects. The RPZ is trapezoidal in shape and centered about the extended runway centerline. The dimensions of an RPZ are a function of the type of aircraft and approach visibility minimums associated with the particular runway end. The RPZ begins 200 feet from the runway end. The RPZ's for each end of Runway 5-23 are dimensioned to accommodate business jet aircraft and future one-mile visibility minimum GPS approaches. The RPZ's for each end of Runway 17-35 are dimensioned to accommodate smaller general aviation aircraft and visual approaches.

Recent safety inspections completed by the Arizona Department of Transportation, Aeronautics Division, for the FAA indicated that numerous shrubs and bushes penetrate the RSA, OFA, RVZ, and Primary Surface. A visual inspection of the airport during the inventory phase of this study confirmed the location of shrubs up to 10 feet tall within these safety areas. These areas should be cleared and graded to conform with FAA safety standards in order to protect the operations of aircraft using the runways and taxiways at the airport. In addition to the trees and shrubs there is building within the RSA and OFA along Runway 5-23. This building was previously used by the Air Force to monitor training traffic using Runway 5-23 and is identified on **Exhibit 4A**. With the military no longer using this building, it should be removed to clear the RSA and OFA.

**Exhibit 4A** depicts the RPZ's for each runway end at the Coolidge Municipal Airport. As shown on the exhibit, the RPZ's for each end of Runway 5-23 extend beyond the existing airport

property line. Positive control of these areas, through easement or property purchases, is recommended by the FAA. Therefore, facility planning should include gaining positive control of the RPZ surfaces that fall outside the existing airport property line.

## LANDSIDE ALTERNATIVES

As an essential element of the local, regional, and national transportation system, the airport has a specific role and to satisfy this role certain functions must be accommodated. However, the airport also functions as an economic catalyst for the community and can be developed to enhance the economic benefit of the local area. With this in mind, future landside development should provide for the development of essential aviation facilities as well as provide areas to enhance the economic benefit of the airport to the community.

Typically, airports face development constraints of one degree or another because of their basic function, causing the alternatives analysis to focus upon specific layouts of landside facilities. However, Coolidge Municipal Airport is unique in that it has large amounts of land area available for development. Also, the growth of aviation facilities at the airport is expected to absorb only a limited amount of the existing land area which is available. As a result, the airport planning efforts should maximize existing property in an efficient manner that will serve demand well beyond the 20-year planning period. Therefore, to provide a functional facility which meets all potential development needs, areas best suited for specific development should

be identified. First, essential development elements to serve airfield and general aviation needs must be considered, then areas for economic development can be designated.

To a certain extent landside uses should be grouped with similar uses or uses that are compatible. Other functions should be separated, or at least have well-defined boundaries for reasons of safety, security, and efficient operation. Finally, each landside use must be planned in conjunction with the airfield, as well as ground access that is suitable to the function. Runway frontage should be reserved for those uses with a high level of airfield interface, or need for exposure. Other uses with lower levels of aircraft movements, or little need for runway exposure can be placed in more isolated locations.

### **Landside Considerations**

The primary landside facilities to be accommodated at the airport include aviation-related facilities such as a terminal building, aircraft storage hangars, and aircraft parking. Other landside development should be considered which could provide revenue enhancement possibilities for the airport and economic development opportunities for the city and include industrial and commercial development which includes parcels of land specifically designed to accommodate businesses requiring airfield access.

**Airport Businesses:** This essentially relates to providing areas for the development of facilities associated with aviation businesses that require large apron areas for the storage and

circulation of aircraft. This includes businesses involved with (but not limited to) aircraft rental and flight training, aircraft charters, aircraft maintenance, line service, and aircraft fueling. The facilities commonly associated with businesses such as these include large, conventional type hangars which hold several aircraft plus office and business space. The facility needs analysis indicated that an additional 10,000 square-foot conventional hangar may be required to meet forecast demand.

**Aircraft Storage Hangars:** The facility needs analysis indicated that as many as 12 T-hangar units may be required to meet forecast demand. These T-hangar units are required for the storage of smaller single and twin engine aircraft. While not specifically identified as a future need, consideration should be given to establishing an area for the private development of individual/corporate storage hangars. These types of hangars are intended for individuals or businesses who wish to construct their own storage hangar and are not intended for commercial aviation businesses. An area to accommodate four to six hangars should be considered.

**Fuel Farm:** As mentioned in the facility needs evaluation, the existing underground fuel storage tanks were constructed and installed at the airport before 1988 when new federal Environmental Protection Agency (EPA) regulations were enacted regarding underground fuel storage. While the 1988 regulations initially applied to new tank construction and installation, all existing underground storage tanks will be required to meet the 1988

standards by December 22, 1998. While an evaluation of the existing tanks ability to meet the 1988 EPA regulations is beyond the scope of this study, an evaluation of the options available for future fuel storage is appropriate should it be cost prohibitive or difficult to meet the EPA regulations with the existing underground storage tanks.

An option for future fuel storage is to place the fuel storage tanks aboveground and locate them on or near the apron. This allows for fueling directly from the fuel storage tanks which can be conveniently near the terminal building. This also allows for the establishment of a self-service fueling island. Under this option, pilots could refuel their own aircraft using a credit card. Another option is to locate aboveground storage tanks in area off the apron. Under this option, mobile fuel trucks would be required for refueling. While both options are feasible at the airport, the location of the tanks along the apron would be less costly to operate and could offer the additional possibility of after hours refueling. Both options will be considered in each landside alternative.

**Skydiving Facilities:** Skydiving facilities include those facilities necessary to house training and other related skydiving activities and a parachutist landing area. These facilities should be located in an area close to the aircraft parking apron or with the availability for airfield access. A skydiving building is located approximately 1,900 feet southeast of the Runway 35 threshold along an abandoned runway. A parachutist landing area has been designated for an area east of Runway 17-35 and south of

4th Street. The parachutist landing area is required to be clear of obstructions and at least 1,200 feet from development such as telephone and power lines, buildings, roadways, and clusters of trees.

**Economic Development:** Besides reserving land area at the airport for the above-mentioned landside facilities, consideration should be given to providing areas for business and industry development at the airport for airport revenue enhancement and local economic development. This includes providing areas for the development of commercial/industrial facilities with direct taxiway access to the airfield. Parking and utilities such as electricity, water, and sewer should be considered for these areas.

**Recreational Area:** A suggestion of the Planning Advisory Committee (PAC) was to identify an area for the development of an on-airport recreational area to serve aircraft and pilots visiting Coolidge, similar to planned recreational areas at other Arizona airports which are included in the Arizona Recreational Airports System Plan. The Arizona Recreational Airport System identified in the 1992 Arizona Recreational Airports System Plan initially includes 12 existing airports and four proposed airports in rural areas of the state which are located in or near areas with high recreational value. The first on-airport recreational area was constructed at Payson Municipal Airport in early 1997 and included shower and restroom facilities and 12 campsites. The Casa Grande Ruins, located in the City of Coolidge, and the Picaho Reservoir, located only minutes south of the City

of Coolidge, provide recreational opportunities for visitors to the area.

### **General Aviation Alternatives**

Existing general aviation landside facilities include a 50,000 square yard apron, 11,700 square-foot conventional hangar, and a 2,200 square-foot terminal building. Future requirements include a 10,000 square foot conventional hangar and 12 T-hangars. Consideration should be given to providing an area for the development of corporate hangars and fuel farm as well.

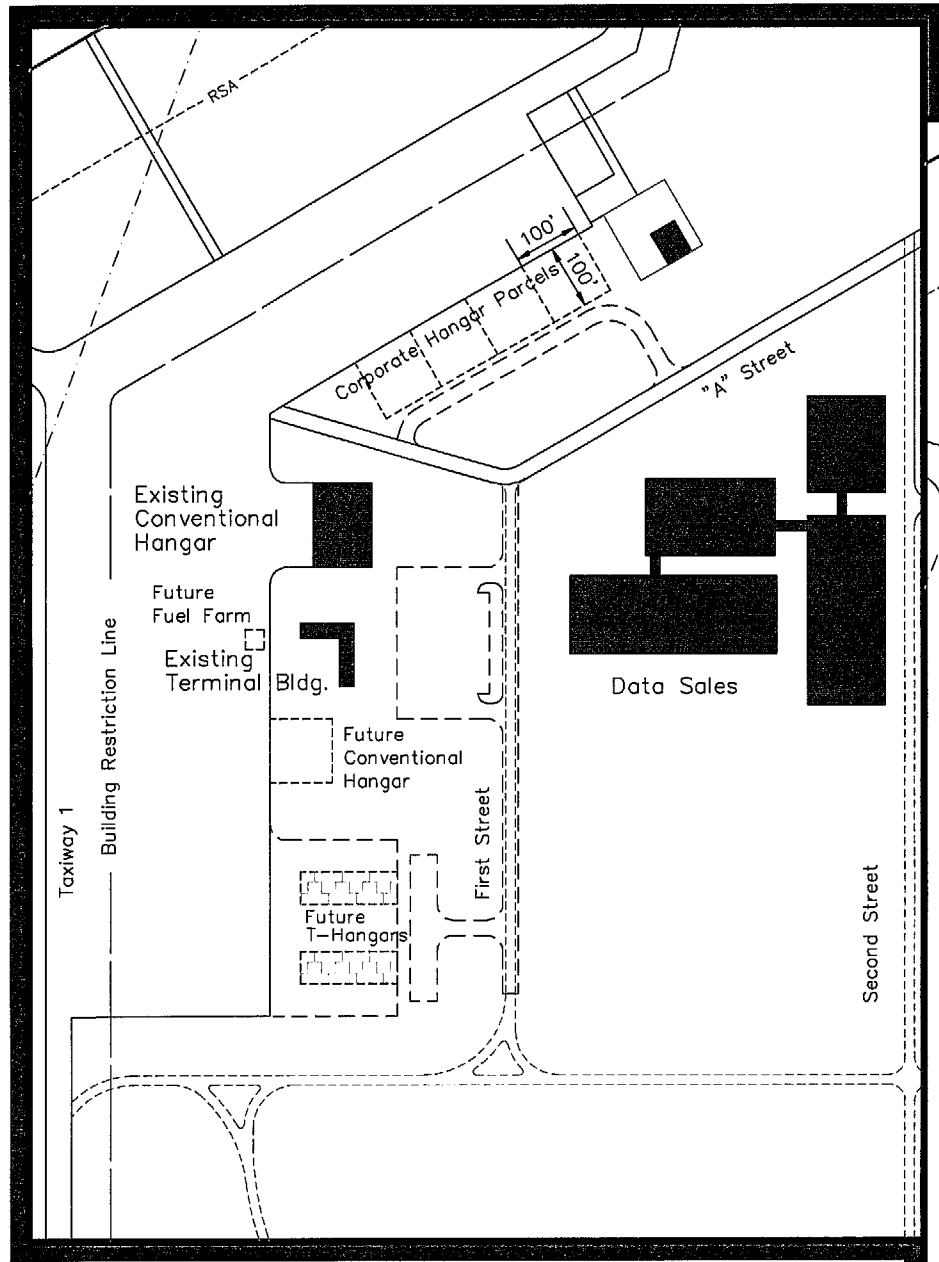
The existing terminal area is ideally located on the airfield at the intersection of Runway 5-23 and 17-35. In addition, there is sufficient area for the expansion of general aviation facilities within the existing terminal area. Therefore, the alternatives analysis will focus on alternative layouts within the existing terminal area.

**Exhibit 4B** illustrates three alternatives for the development of general aviation facilities at the airport. Alternative A provides for the development of a 10,000 square foot conventional hangar and two 6-unit T-hangars along the apron south of the existing terminal building; four corporate hangar parcels along the apron north of A Street; and a fuel farm on the apron in front of the existing terminal building. Alternative B locates two 6-unit T-hangars along the apron north of the existing conventional hangar; four corporate hangar parcels along a taxiway extending south from the apron; a conventional hangar south

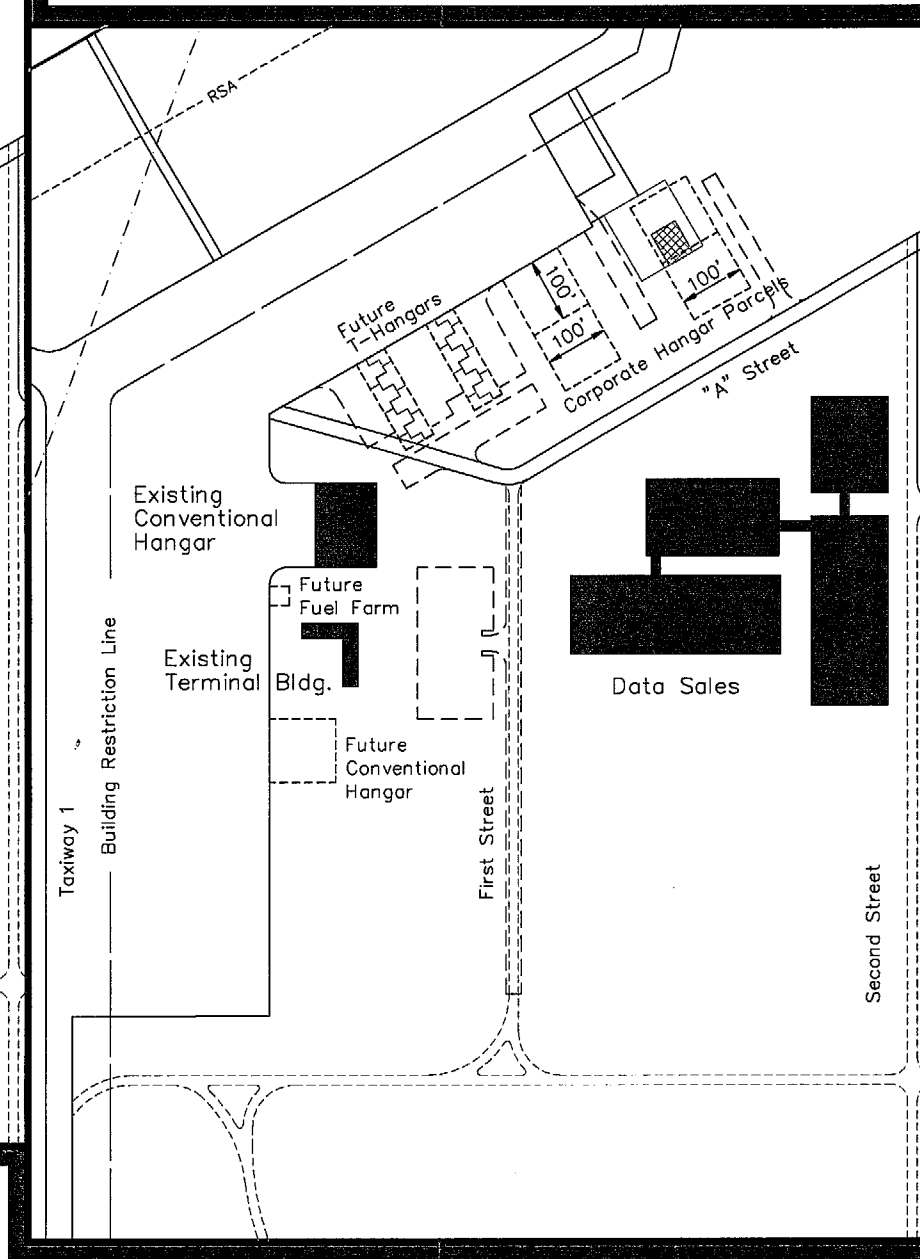
of the existing terminal building; and a fuel farm along the apron between the existing terminal building and conventional hangar. Alternative C locates five corporate hangar parcels along the apron south of the existing terminal building; a conventional hangar along the apron north of the existing conventional hangar; two 6-unit T-hangars on the apron north of the existing conventional hangar; and a fuel farm along A Street north of the existing conventional hangar.

When comparing all alternatives, Alternative B would have the greatest development costs as taxiway access would need to be developed for both the T-hangars and conventional hangars. Alternative C would be the most affordable as the T-hangars would be constructed on available apron area and the conventional and corporate hangars utilize existing apron frontages. T-hangar expansion is prohibited in Alternative B.

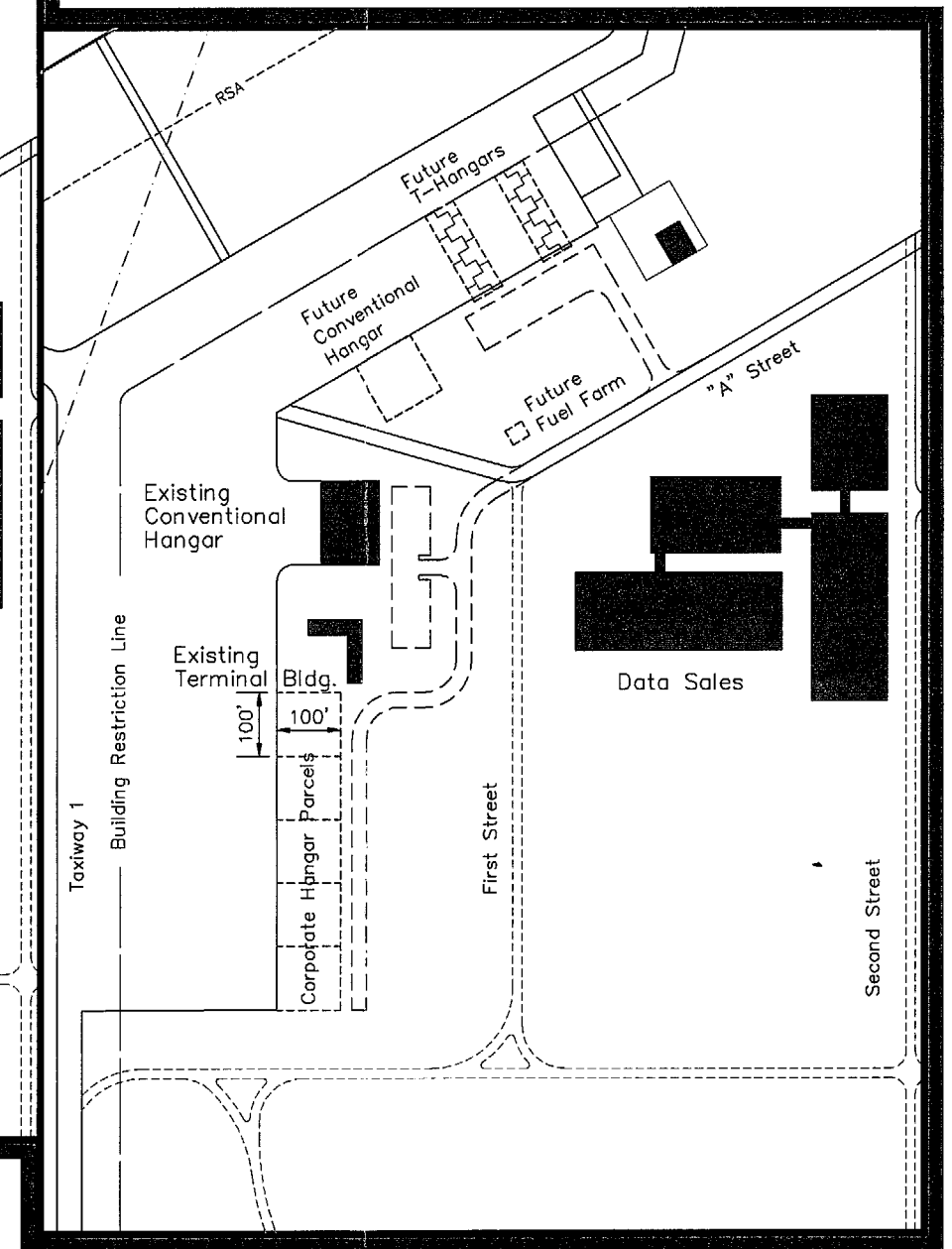
The location of the fuel farm in Alternative A would allow for stationary refueling and the possibility for self-service and after-hours refueling. While the fuel farm location in Alternative B could provide the same possibilities as Alternative A, this location could prevent terminal and/or conventional hangar expansion. The fuel farm location in Alternative C provides good access for fuel tanker trucks, while fuel tanker tanks would be required to use the apron in Alternatives A and B. Since the fuel farm is not along the apron in Alternative C, mobile fuel trucks would be required for refueling. This would be more cost to operate than Alternatives A and B.



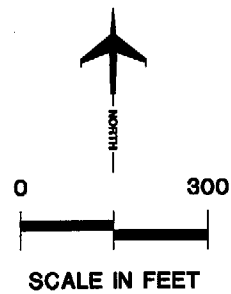
ALTERNATIVE A



ALTERNATIVE B



ALTERNATIVE C



LEGEND		
EXISTING	ULTIMATE	DESCRIPTION
[Solid Black]	[Dashed Line]	BUILDING
[Cross-hatched]	[Dashed Line]	BUILDING TO BE REMOVED OR RELOCATED
[Solid Line]	[Solid Line]	BUILDING RESTRICTION LINE (BRL)
[Dashed Line]	[Dashed Line]	FACILITY CONSTRUCTION
[Dashed Line]	[Dashed Line]	UNIMPROVED ROAD

## Land Use Alternatives

**Exhibit 4C** presents two land use alternatives for the airport which provide areas for the development of industrial/commercial facilities on the airport for revenue enhancement and local economic development. Alternative A proposes areas for industrial/commercial development that retains existing roadways and locates facilities near existing utilities. The area along the existing apron is reserved for general aviation. An area for aviation-related business development is reserved for the area north of A Street to the building restriction line. Taxiway 6 would be extended to the northeast to provide airfield access for these parcels. First Street would be improved and extended to the South Hangar. The existing taxiway access to the South Hangar would be reconstructed. The remaining land area to the outer limits of parachutist landing area would be reserved for industrial/commercial development.

Similar to Alternative A, Alternative B reserves the area along the existing apron for general aviation and the land area east of the apron for industrial/commercial development. To maximize development potential, the area north of Runway 5-23 and the area along Taxiway 2 extending to the South Hangar are reserved for aviation-related development. Under this alternative, a parallel taxiway would be developed along the north side of Runway 5-23 to provide airfield access for the aviation-related parcels located north of Runway 5-23 and Taxiway 2 would be reconstructed to provide airfield access for the aviation-related parcels located east of Runway 17-35.

The designated parachutist landing area would be relocated to the south and east to allow for development along Taxiway 2. The extension of Taxiway 2 to the Runway 35 end and the reconstruction of the taxiway leading to the South Hangar could provide the opportunity for the development of a recreational area between the South Hangar and the Runway 35 end as shown in Alternative B.

While both alternatives retain the existing apron for general aviation growth, Alternative B provides a more efficient use of airfield facilities by providing for the development of general aviation and aviation-related facilities along a reconstructed Taxiway 2 and north of Runway 5-23. Reconstructing Taxiway 2 would have more benefit for the airfield than the proposed extension of Taxiway 6 on Alternative A as this would provide for taxiway access to the Runway 35 end. While the development costs under Alternative B are greater than Alternative A due to the development of the area north of Runway 5-23, Alternative B maximizes developable airport land adjacent to the main access road.

## Utilities

A consideration with future development at the airport is the availability of adequate utility services. This includes electricity, water, sanitary sewer, and natural gas. Electric service at the airport is provided by the Bureau of Indian Affairs. The availability of electrical power is expected to be adequate for all future demands.

The water system at the airport consists of two wells on the eastern edge of the airport with the capacity to provide 1,600 gallons of water per minute. The adequacy of this existing water system will be dependent upon the specific water requirements of future users at the airport. Should the existing system not be able to provide adequate water service, the airport might be required to connect to the City of Coolidge public water system. The nearest public water lines are located near Valley Farm, three miles to the northwest.

The sanitary sewer system at the airport is original to the airport and initially included a sewage treatment plant located in the northwest corner of the airport. Presently, the sanitary sewer system consists of a septic tank utilizing the original sewer lines. While the septic system is adequate for existing needs, a sewage treatment plant will be required should industrial/commercial development take place at the airport. Therefore, facility planning should consider building a sewage treatment plant in the original sewage treatment plant location.

Natural gas is currently not available at the airport. The need for natural gas will be established by the type of industrial/commercial development that takes place at the airport.

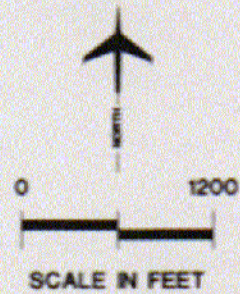
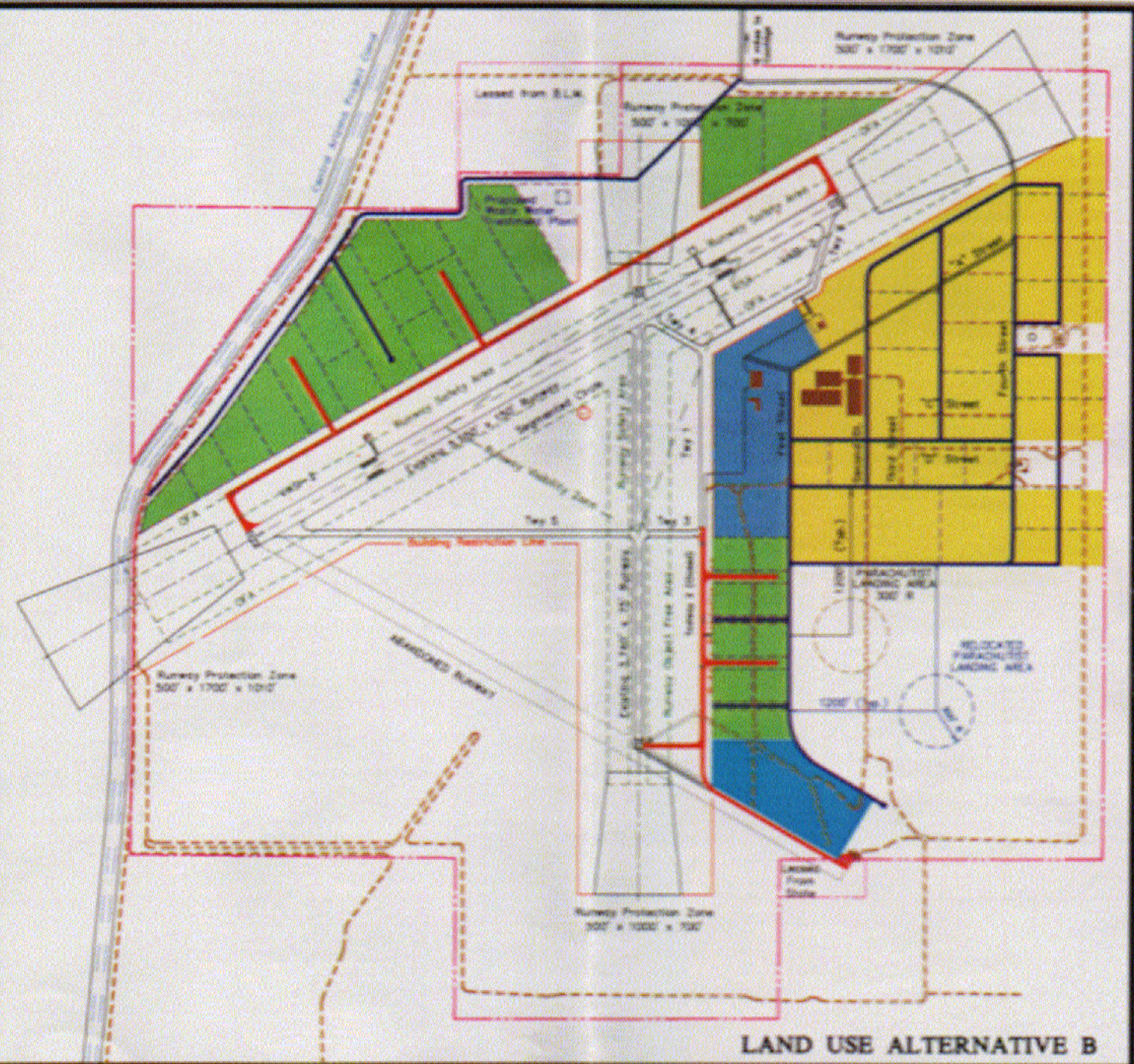
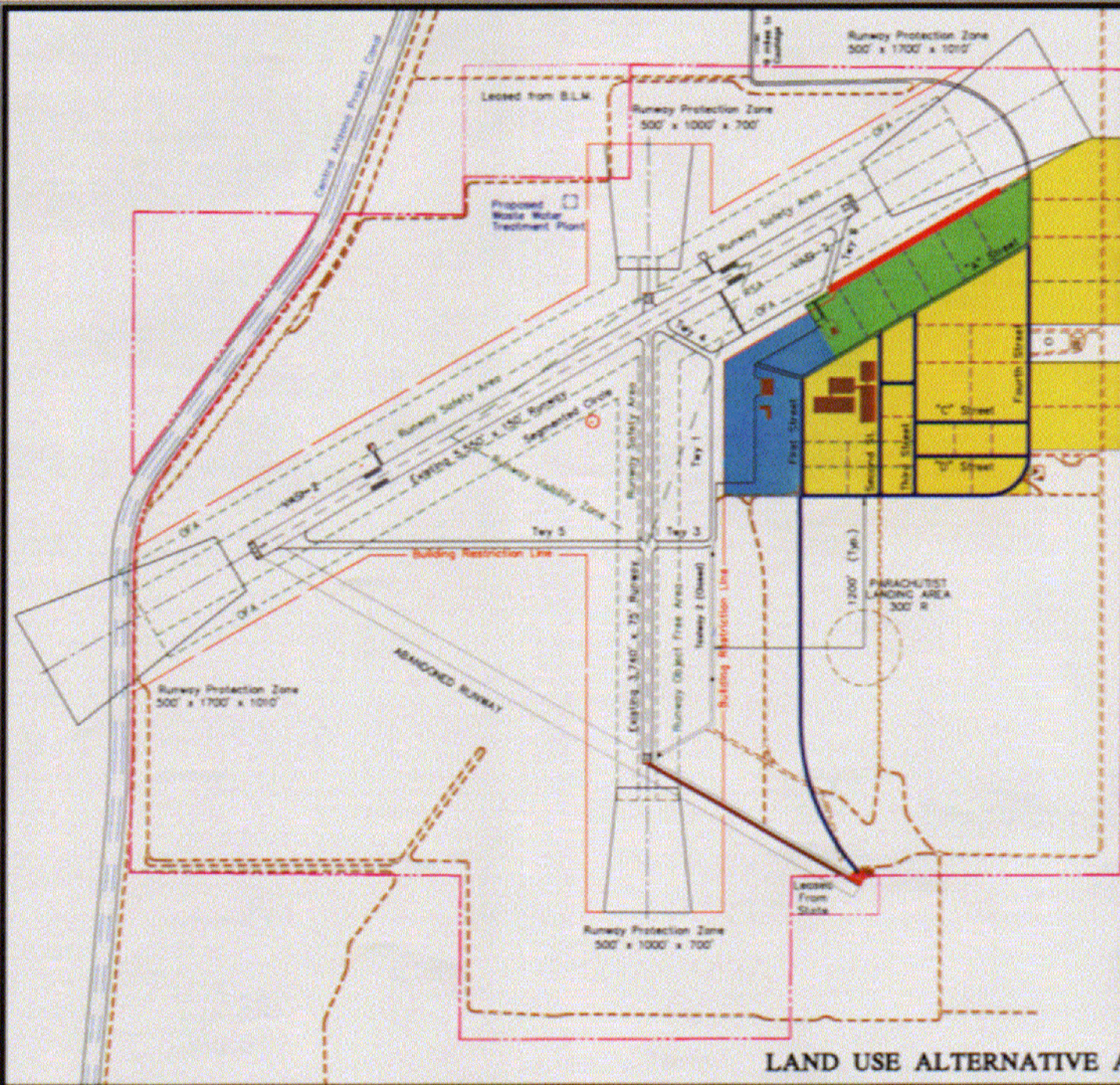
## **SUMMARY**

The process utilized in assessing the landside and airside development alternatives involved a detailed analysis of short and long term aviation requirements and future growth potential. Current airport design standards were considered at every stage of development. Safety, both air and ground, was given a high priority in the analysis of alternatives. Also, maximization of airport property for revenue generating sources was considered.

At this point, basic concepts have been identified for the potential development of airside, landside, and commercial/industrial areas at the airport. After review by the Planning Advisory Committee, a refined concept will be forged into the final plan. The following chapters will present a schedule for proper implementation of the development program.

The proposed development plan for the airport must represent a means by which the airport can grow in a balanced manner, both on the airside and landside, to accommodate the forecast demand. In addition, the plan must provide for flexibility to meet activity growth beyond the long range planning period.





- LEGEND**
- Airport Property Line
  - Leased Property
  - Proposed Taxiways
  - Proposed Roads
  - Aviation-Related
  - General Aviation
  - Industrial/Commercial
  - Recreational Area